SEQUENCE LISTING

- <110> Ribaudo and Shields
- <120> B2 Microglobulin Fusion Proteins and High Affinity Variants
- <130> 67022
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- <141>
- <150> 09/719,243
- <151> 2001-03-19
- <150> PCT/US99/12309
- <151> 1999-06-03
- <150> 60/088,813
- <151> 1998-06-10
- <160> 20
- <170> PatentIn Ver. 2.0
- <210> 1
- <211> 119
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- <213> Homo sapiens
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- Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg 20 25 30
- His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser 35 40 45
- Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu 50 60
- Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp 65 70 75 80
- Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp 85 90 95
- Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile 100 105 110
- Val Lys Trp Asp Arg Asp Met 115

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: fusion protein

<400> 2

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
1 5 10 15

Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val 20 25 30

Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
35 40 45

Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
50 60

Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile 65 70 75 80

Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr 85 90 95

Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala 100 105 110

Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn 115 120 125

Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro 130 135 140

Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp 145 150 155 160

Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser 165 170 175

Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val 180 185 190

Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu 195 200 205

Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr 210 215 220

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Ala Ser 225 230 235 240

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu 245 250 255

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro

260 265 270

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys 275 280 285

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu 290 295 300

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys 305 310 315 320

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp 325 330 335

Arg Asp Met

<210> 3

<211> 358

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: fusion protein

<400> 3

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser 1 5 10 15

Gly Leu Glu Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr
20 25 30

Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser 35 40 45

Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu
50 55 60

His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu 65 70 75 80

Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn 85 90 95

Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys
100 105 110

Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser 115 120 125

Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val 130 135 140

Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His 145 150 155 160

Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu 170 165 Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe 185 Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His 195 200 Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp 235 Ala Ser Thr Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ala Ser Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His 265 Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly 275 280 285 Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg 295 Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser 310 315 Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu 325 Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val 345 350 Lys Trp Asp Arg Asp Met 355 <210> 4 <211> 24 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: primer <400> 4 ttcttcagca aggactggtc tttc 24 <210> 5 <211> 24

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gtgttcagca aggactggtc tttc
                                                                    24
<210> 7
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<400> 7
taagtctgaa tgctccactt tttc
                                                                    24
<210> 8
<211> 31
<212> DNA
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<400> 8
agggtaccat ggtttccgtg gagacgcaag c
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<210> 9
<211> 40
<212> DNA
<213> Artificial Sequence
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<400> 9
tcgaattcat gatgctagcc caatacgttt gaggagatgg
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<210> 10
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Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
                                 25
Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
         35
                             40
Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu
Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
                 85
Arg Asp Met
<210> 11
<211> 15
<212> PRT
<213> Artificial Sequence
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      can be used in fusion proteins
<400> 11
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
                  5
<210> 12
<211> 15
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: linker that
     can be used in fusion proteins
<400> 12
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ala Ser
                                    10
<210> 13
<211> 21
<212> PRT
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<213> Artificial Sequence

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Lys Tyr Leu Leu Pro Thr Ala Ala Gly Leu Leu Leu Leu Ala Ala
                                      10
Gln Pro Ala Met Ala
             20
<210> 14
<211> 20
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: signal peptide
<400> 14
Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser
                                      10
Phe Ala Ser Thr
<210> 15
<211> 11
<212> PRT
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<400> 15
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn
 .1
                  5
<210> 16
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Ser Ser Glu Gln Thr Phe Met Tyr Tyr
  1
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<210> 17
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<212> PRT
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<400> 17
Leu Leu Phe Gly Tyr Pro Val Tyr Val
<210> 18
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Ser Leu Tyr Asn Thr Val Ala Thr Leu
                  5
<210> 19
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Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys
                  5
<210> 20
<211> 9
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: influenza NP
      265-273
<400> 20
Ile Leu Arg Gly Ser Val Ala His Lys
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                  5
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